

## **ABSTRACT**

The present invention provides a system and a method to prevent undesired sounds during FM modulator turn on. The system includes an RF attenuator circuit, a delay switch circuit, an RF ramp up circuit, and audio ramp up circuit. The RF attenuator circuit significantly reduces the RF signal from the FM modulator when the FM modulator is initially turned on, which significantly reduce whistle caused by the RF signal from the modulator beating with the local oscillator in the radio receiver. After allowing time for the PLL to lock onto the RF signal, the time delay switch circuit becomes active and charges the RF ramp up circuit. The RF ramp up circuit gradually increases the RF signal by gradually deactivating the RF attenuator circuit. The gradual increase of the RF signal is slower than the response time of the radio AGC, thereby preventing any pop as the RF signal is provided to the radio receiver.